THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA) : (a) 1NSAT-2A is- now scheduled to be launched before the end of June 1992.

(b) INSAT-2A is to be launched by ARIANE-4 Launch Vehicle along with a satellite belonging to EUTEL-SAT Organisation in a dual launch Configuration. Even though IN-SAT-2A is fully ready and tested EUTELSAT is able to ready its satellite for launch only by June 1992 and hence the three months delay. The launch date adjustments have to be made in order to find launch date suitable for both panties.

World position of science and technology manpower

1379. SHRI RAGHAVJI : Will the PRIME MINISTER be pleased to state:

(a) what is the world position of Science and Technology manpower of India in terms of number and quality in Department of Space;

(b) what efforts are being made to be in the forefront of these technologies:;

(c) how does India's situation compare with U.S.A. Europe and Japan ; and

(d) what are the time bound programmes to cope up with these technologies?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA) : (a) The S&T manpower of India in the area of Space is about 12000.

(b) and (c) The quality of Space manpower in India is considered excellent in view of the commendable achievements made with much lesser investment and manpower. Further Indian space efforts stated much Later than. USA. Europe and Japan's entry into the spacs area. Yet the progress so far made by India in providing space based services for national development such as communication. TV-meteorology disaster warning remore sensing for mangement of national resources and enalronemt as well us design launch and operations of satellites compares well with the said countries. Interna-;ional community recognises India as world power in space technology.

(d) Department- of Space has a well structured programme for the transformatioa of India into an advaiced nation by the turn of the century by fully exploiting the potential of space technology and it occupies a commanding position in utilising space for national develcp-m3nt particularly in the integrated sustamable development of the country and exploitation of national natural resources and in the areas of communication, broadcasting rural and developmental educa-tion meteorology and disaster management. In satellite.technology India designed developed fabricated and successfully launched sveral satellites. It has already become completely, self-reliant in all aspects of remote sensing satellite technology with the launch and successful utilisation of Indian Remote Sensing Satellite-1A (1RS-1A) and Indian Remote Sensing Satellite-IB (IRS-1B), the state-of-art satellites resulting in enquiries from abroad for India assistance in satellite remote sensing technology. India has also indigenously built the second generation complex Indian National Satellite 2A (INSAT-2A) satellite which is ready for launch in 1992.

In the Launch Vehicle Technolog with the Planned launches of Aug mented Satellite Launch Vehicle (ASLV) and Polar Satellite Launc! Vehicle (PSLV) during 1992-93 and the Initiation of Geosynchronous Satellite Launch Vehicle (GSLV) project India is on the threshold of achieving self-reliance in the launch vehicle technology as well.

Between now and 2000 Department of Space has programmes to launch the 1NSAT-2 series of satellites in the second half of 90's and use launch vehicles which belong to PSLV and GSLV categories. Work onGRAMSAT is also planned which will improve the educational-cultural and industrial spheres in the rural areas of the country.

PAPERS LAID ON THE TABLE

I. Report and Accounts (1990-91) of the Electronics Corporation of India Limited, Hyderabad, and related papers.

II. Report and Accounts (1990-91) of the Mehta Research Institute of Mathematics and Mathematical Physics, Allahabad and related papers.

III. Report and Accounts (1990-91) of the Tata Memorial Centre, Bombay and related papers

IV. Report and Accounts (1990-91) of the Tata Institute of Fundamental Research, Bombay and related papers.

V. Report and Accounts (1990-91) of the Institute of Mathematical Sciences, Madras and related papers.

VI. Memorandum of understanding (1991-92) between Government of India (Department of Atomic Enrgy) and Nuclear Power Corporation of India Limited,

VII. Notification of the Ministry of Personnel, Public Grievances, and Pensions (Department of Personnel and Training).

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA) : Madam, 1 lay on the Table—

I (1) A copy each (in English and Hindi) of the following papers under sub-section (1) of section 619A of the Companies Act, 1956 :-

(i) Twenty-fourth Annual Report and Accounts of the Electronics Corporation of India Limited, Hyderabad for the year 1990-91 together with the Auditors' Report on the Accounts and the comments of the Comptroller and Auditor General of India thereon.

(ii) Statement by Government accepting the Report.

(2) Statement (in English and Hindi) giving reasorns for the delay in laying the papers mentioned at I(1) above.

[Placed in Library. *See* No. LT 1409/92 for (i) and (ii)]

II. A copy each (in English and Hindi) of the following papers:—

(i) (a) Annual Report o the Mehta Research Institute of Mathematics and Mathematical Physics, Allahabad for the year 1990-91.

(b) Annual Accounts of the Mehta Research Institute of Mathematics - nd Mathematical Physics, Allahabad for the year 1990-91 and the Auditors' Report thereon.